ABSTRACT

Alicyclic methacrylate compounds having an oxygen substituent group on their $\alpha\text{-methyl}$ group, represented by 5 formula (1), are novel wherein R^1 is H or C_1 - C_{10} alkyl which may contain a halogen atom, hydroxyl group, ether bond, carbonyl group, carboxyl group or cyano group, and R2 is a monovalent C_3 - C_{20} organic group having an alicyclic structure. Polymers prepared from these alicyclic methacrylate compounds 10 have improved transparency, especially at the exposure wavelength of an excimer laser, and improved dry etching resistance. Resist compositions comprising the polymers are sensitive to high-energy radiation, show a high resolution, allow smooth development, lend themselves to micropatterning, 15 and are thus suitable as micropatterning material for VLSI fabrication.

(1)